A Royal DNA Mystery, Five Centuries Later: UNH Professors Weigh In On Richard III Findings

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University of Leicester image

Consider this the coldest of cold cases: 529 years after his death, a 16th century English king has been positively identified through DNA testing. And what's more, the DNA tests have shown a possible kink in the royal family's lineage.

Extensive DNA testing earlier this month proved what scientists had previously believed to be true: that a skeleton unearthed in a Leicester, England, parking lot in 2012 was indeed Richard III, king of England from 1483 to 1485.

And even more shocking news was revealed: Testing of Richard's mitochrondrial DNA shows an anomaly in his Y chromosome. This anomaly represents scientific proof that Richard's mother had some sort of affair, or what the latest article in *Nature Communications* calls "a false-paternity event," thus causing a break in the royal lineage. It's a surprise to both the scientific community and royal watchers around the globe.

But beyond the royal-watching gossip, the discovery has been a topic of discussion in some of UNH's classrooms, especially classes studying literature, archaeology and biology, as the findings are an intersection of all three areas of study.

The mystery began in the summer of 2012, when researchers from the University of Leicester discovered a skeleton in a parking lot outside of a former Franciscan friary and testing commenced. In 2013 Leicester scholars reported the identity as that of Richard III, the hunchbacked leader who ruled until his death in battle.

MARIEKA BROUWER-BURG

"These results are exciting. I remember discussing the topic with one of my anthropology classes when the remains were first unearthed back in 2012. The

mitrochondrial DNA results seem to be the nail in the coffin regarding the identity," says Marieka Brouwer-Burg, UNH anthropology professor.

Richard III was the subject of the Shakespearean play of the same name, written around 1592. The work chronicles Richard's rise to power and his short reign as a ruthless, diabolical leader.

But Douglas Lanier, Shakespeare professor at UNH, says the intersection of Shakespeare and real life—the basis of his scholarship and subject of his book *Shakespeare and Modern Popular Culture*—is a very complicated matter, especially in the wake of the recent DNA announcement.


DOUGLAS LANIER

Lanier says that there's much modern-day debate about Richard's evil ways and whether Shakespeare's work was a fair portrayal—discussion that's flaring up with these new DNA revelations. In fact, a society of Richard III aficianados has dedicated itself to rescuing Richard's reputation, even disputing his physical deformity as claimed in Shakespeare's work (the skeletal remains, alas, prove he did indeed have severe scoliosis). It was this group that was instrumental in directing archaeologists to the parking lot where his remains were found.

Lanier, who is also the director of the UNH London Program, points out that Nick Holder, one of the history professors involved in the project to find Richard's body, works at Regent's University in London, where the UNH London Program is held.

"Last January, I heard a superb lecture from him about the Richard III project. So students in our UNH London Program can take a history course from one of the folks involved in this project," Lanier says.

According to Brouwer-Burg, there have been a handful of such collaborations between archaeologists, forensic anthropologists and geneticists, including the sequencing of the so-called Neanderthal genome, and similar DNA extraction and testing has been used

on New Kingdom mummies (King Tut, his purported father Akhenaten, and Akhenaten's consort) in order to determine royal parentage.

 JANET ANDERSON

Biology professor Janet Anderson calls Richard III a “great example of forensic anthropology” and notes that the use of DNA technology in cold cases is increasing. It was reported in June that the convicted serial killer Billy Glaze (jailed in 1989 for killing three women in Minnesota, but suspected in roughly 50 unsolved murders) may be shown to be innocent by DNA analysis.

Brouwer-Burg says these new analyses are a “wonderful accompaniment” to the work done by archaeologists.

“I hope that as the field of genetics evolves, archaeologists can look forward to using this tool more frequently, as better results can be obtained with less and/or fragmentary DNA, in less time, and for less money,” she says.

As for the royal scandal more than 500 years in the making, time will tell if this truly affects the current royals. As Brouwer-Burg points out, juicy gossip is just as good, even centuries later, thanks to the blend of archaeology and biology.

“DNA tests always seem to reveal sensational results … because genes have the tendency to casually expose many time-honored human transgressions such as infidelity.” she says.

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